



**PRODUCT NAME :** 2N5223 NPN General Purpose Transistor (Pack of 5)

**PRICE :** Rs 20.00

**SKU :** RM2077



NOTE: THE PRODUCT MAY BE DIFFERENT FROM IMAGE SHOWN. Copyrights by Robomart.com

## DESCRIPTION

## Features

- Collector-Emitter Volt ( $V_{ce0}$ ): 20V
- Collector-Base Volt ( $V_{cb0}$ ): 25V
- Collector Current ( $I_c$ ): 100mA
- $h_{fe}$ : 50-800 @ 2mA
- Power Dissipation ( $P_{tot}$ ): 625mW
- Current-Gain-Bandwidth ( $f_{total}$ ): 150MHz
- Type: PNP

FAIRCHILD SEMICONDUCTOR

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3469674 FAIRCHILD SEMICONDUCTOR

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**2N5223/FTSO5223**

NPN Small Signal General Purpose Amplifier & Oscillator

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- $P_D$  ... 625 mW @  $T_A = 25^\circ\text{C}$
- $V_{CE0}$  ... 20 V (Min)
- $h_{FE}$  ... 50-800 @ 2.0 mA
- $f_T$  ... 150 MHz (Min) @ 10 mA
- $C_{cb}$  ... 4.0 pF (Max)
- Complement ... 2N/FTSO5227

<b>PACKAGE</b>	
2N5223	TO-92
FTSO5223	TO-236AA/AB

**ABSOLUTE MAXIMUM RATINGS (Note 1)**

<b>Temperatures</b>	
Storage Temperature	-55° C to 150° C
Operating Junction Temperature	150° C

<b>Power Dissipation (Notes 2 &amp; 3)</b>		
Total Dissipation at	<b>2N</b>	<b>FTSO</b>
25° C Ambient Temperature	0.625 W	0.350 W*
25° C Case Temperature	1.0 W	

<b>Voltages &amp; Currents</b>	
$V_{CE0}$ Collector to Emitter Voltage (Note 4)	20 V
$V_{CB0}$ Collector to Base Voltage	25 V
$V_{EB0}$ Emitter to Base Voltage	3.0 V
$I_C$ Collector Current	100 mA

**ELECTRICAL CHARACTERISTICS (25° C Ambient Temperature unless otherwise noted) (Note 6)**

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
$BV_{CE0}$	Collector to Emitter Breakdown Voltage	20		V	$I_C = 1.0\text{ mA}, I_E = 0$
$BV_{CB0}$	Collector to Base Breakdown Voltage	25		V	$I_C = 100\ \mu\text{A}, I_E = 0$
$BV_{EB0}$	Emitter to Base Breakdown Voltage	3.0		V	$I_E = 100\ \mu\text{A}, I_C = 0$
$I_{E0}$	Emitter Cutoff Current		500	nA	$V_{EB} = 2.0\text{ V}, I_C = 0$
$I_{C0}$	Collector Cutoff Current		100	nA	$V_{CB} = 10\text{ V}, I_E = 0$
$h_{FE}$	DC Current Gain	50	800		$I_C = 2.0\text{ mA}, V_{CE} = 10\text{ V}$

- NOTES:**
1. These ratings are limiting values above which the serviceability of any individual semiconductor device may be impaired.
  2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
  3. These ratings give a maximum junction temperature of 150° C and (TO-92) junction-to-case thermal resistance of 125° C/W (derating factor of 8.0 mW/° C); junction-to-ambient thermal resistance of 200° C/W (derating factor of 5.0 mW/° C); (TO-236) junction-to-ambient thermal resistance of 257° C/W (derating factor of 2.8 mW/° C).
  4. Rating refers to a high current point where collector to emitter voltage is lowest.
  5. Pulse conditions: length = 300  $\mu\text{s}$ ; duty cycle < 2%.
  6. For product family characteristic curves, refer to Curve Set T144.
- \* Package mounted on 99.5% alumina 8 mm x 8 mm x 0.6 mm.

